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Jon A. Casey et al.

REMARKS

Applicants thank the Examiner for the early indication of allowability as to claims 13-18. Claims 1-9, 11-18 and 23 are pending in the application with the present amendments. Claims 19-22 are cancelled herein, these being directed to a distinct invention which was not elected in response to the restriction requirement.

The title is amended herein in the manner suggested by the Examiner. Certain of the amendments herein, particularly to claims 7, 9 and 14 are made for the purpose of correcting dependencies in the claims that were inadvertently incorrect as filed. Claims 15 through 18 follow the amendment made to claim 14 in that they are now corrected to depend from claim 13 directly or indirectly, instead of from claim 14. Still other amendments emphasize a feature of claim 3 which more specifically defines salicide precursor as consisting essentially of at least one metal selected from the group consisting of: Pt, Cu, Co, Ni, W, and Ti.

In the Office Action, claims 1-12 were rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,329,262 to Fukuda et al. ("Fukuda") in view of U.S. Patent No. 6,297,135 to Talwar et al. ("Talwar"). For the reasons set forth below, applicants respectfully submit that the presently amended claims are fully distinguished from *Fukuda* and *Talwar*.

Claim 1 is amended herein to more clearly distinguish it from *Fukuda* and *Talwar*. Claim 1 requires depositing a salicide precursor over an isolation region and over an upper layer of a single crystal semiconductor. The salicide precursor is reacted with the

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upper layer to form a self-aligned salicide, but the salicide precursor does not react to form a salicide with the isolation region. A portion of the unreacted salicide precursor is preserved over the isolation region as a body of the thermistor.

These features are neither taught nor suggested by the combination of *Fukuda* and *Talwar*. Clearly, *Fukuda* does not deposit a salicide precursor as a body of a thermistor, the same precursor being subsequently reacted with an upper layer of a silicon substrate to form a salicide. Rather, *Fukuda* deposits WSiN by sputtering WSi (tungsten silicide). No silicide precursor is deposited on the insulating film 2 (FIG. 1 of *Fukuda*). The thermistor includes a body of WSiN, not a silicide precursor. Neither *Fukuda* nor *Talwar* teaches or suggests that WSiN can be reacted with a semiconductor to form a salicide, as required by the language of claim 1.

As further described in the specification and recited in claim 3, in a particular embodiment, the salicide precursor *consists essentially* of at least one metal selected from the group consisting of Pt, Cu, Co, Ni, W and Ti. *Fukuda* neither teaches nor suggests depositing a salicide precursor *consisting essentially* of one of more of these metals. It is respectfully submitted that a compound of one of these metals, such as WSi described in *Fukuda*, does not qualify as *consisting essentially* of one or more of the enumerated metals.

Moreover, *Talwar* does not provide the teachings which *Fukuda* lacks with respect to the presently claimed invention. *Talwar* is merely cited for its description of traditional salicide-forming techniques not in conjunction with the fabrication of a thermistor.

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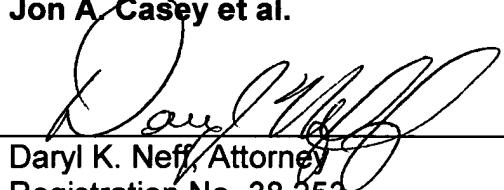
Support for the present amendments is provided, *inter alia*, at paragraph [0021] and paragraphs [0025] through [0031].

In view of the above amendments and remarks, it is believed that the application is now in condition for allowance. It is requested that, should the Examiner have any question regarding the present amendment and the reasons supporting allowance of the claims at this time, that he contact the undersigned at the telephone number indicated below.

It is believed that no fees are required upon filing this Amendment. However, if any fees are required, authorization is given to debit the Deposit Account No. 09-0458 of the Assignee International Business Machines Corporation. If there is an overpayment, please credit the same account.

Respectfully submitted,
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